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# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/955,223 | 09/19/2001 | Simon Riches | 1509-218 | 8329 |

| 22879 | 7590 | 01/03/2005 |
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| EXAMINER |
|---|
| CHAI, LONGBIT |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2131 | |

DATE MAILED: 01/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 09/955,223 | RICHES ET AL. |
| | Examiner | Art Unit | |
| | Longbit Chai | 2131 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *19 September 2001*.

2a)☐ This action is **FINAL.**        2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☐ Claim(s) _____ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-62* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 September 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All  b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *09-19-2001*.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

## DETAILED ACTION

### *Priority*

1.      The application is filed on 09/19/2001 but claims the benefit of foreign

priority has been made and acknowledged.

Therefore, the effective filing date for the subject matter defined in the

pending claims in this application is 09/20/2000 on the benefit of foreign priority

date.

### *Specification*

2.      The disclosure is objected to because of the following informalities:

The phrase "where steps a) to c)" shown on Paragraph 42 has no clear

correspondence that can be found in the previous section with respect to steps a)

to c).   See 37 CFR 1.71.  Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

3.      Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

Claim 5 recites the limitation "said identification symbol" in Line 26.  There

is insufficient antecedent basis for this limitation in the claim.

## *Claim Rej ctions - 35 USC § 102*

The following is a quotation of the appropriate paragraph of 35 U.S.C. 102

that forms the basis for the rejections under this section made in this Office action:

> (b) the invention was patented or described in a printed publication in this or a foreign country or in
> public use or on sale in this country, more than one year prior to the date of application for patent in
> the United States.
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United
> States only if the international application designated the United States and was published under
> Article 21(2) of such treaty in the English language.

4.      Claims 24, 29, 30 and 33 are rejected under 35 U.S.C. 102(b) as being

anticipated by Johnston (Patent Number: 5287478), hereinafter referred to as

Johnston.

As per claim 24, Johnston teaches a method of protecting data during

writing of the data to and reading of the data from a data storage tape, the method

including the steps of: writing a data set to the tape and creating a first code

representative of the content of the data set being written to the tape, associating

said first code with said data set, reading back a data set from the tape and

creating a second code representative of the content of the data read back from

the tape, and comparing the first and second codes and confirming the data set as

valid only if the two codes agree (Johnston: see for example, Column 20 Line 23 –

34).

As per claim 29, Johnston teaches the claimed invention as described above (see claim 24). Johnston further teaches the comparing and/or confirming steps are carried out by a controlling software application (Johnston: see for example, Column 20 Line 23 – 34).

As per claim 30, Johnston teaches the claimed invention as described above (see claim 24). Johnston further teaches the comparing and/or confirming steps are carried out by means of an external reader which is able to access and/or display information recorded in the memory (Johnston: see for example, Column 20 Line 23 – 34).

As per claim 33, Johnston teaches the claimed invention as described above (see claim 24). Johnston further teaches including the step of storing the code (Johnston: see for example, Column 20 Line 23 – 34).

5.    Claims 1 – 10, 12, 14 – 20, 22 – 23, 25 – 28, 31, 32, 34, 36 – 38, 39 – 46,

48 – 56 and 58 – 62 are rejected under 35 U.S.C. 102(e) as being anticipated by

Shnelvar (Patent Number: US 6374266 B1), hereinafter referred to as Shnelvar.

As per claim 1, 31, 39 and 41, Shnelvar teaches a method of protecting

data during writing of the data to a data storage tape, the method including the

steps of: writing a data set to the tape and creating a code representative of the

content of the data set being written to the tape, and associating said code with

said data set (Shnelvar: see for example, Column 5 Line 35 – 60).

As per claim 2, Shnelvar teaches the claimed invention as described above

(see claim 1).  Shnelvar further teaches the code is stored by being written as an

entry to a memory (Shnelvar: see for example, Column 5 Line 35 – 60 and Figure

3 Element 60).

As per claim 3, 32, 40 and 42, Shnelvar teaches the claimed invention as

described above (see claim 2, 11, 39 and 41 respectively).  Shnelvar further

teaches including the step of storing the code (Shnelvar: see for example, Figure 3

Element 60).

As per claim 4, 43 and 53, Shnelvar teaches the claimed invention as

described above (see claim 1, 39 and 41 respectively respectively).  Shnelvar

further discloses the code is associated with the data set by allocating an

identification symbol to said code (Shnelvar: see for example, Figure 3 Element 60

and Column 5 Line 35 – 60).

As per claim 5, Shnelvar teaches the claimed invention as described above

(see claim 3). Shnelvar further teaches the code is stored by being written as an

entry to a memory and wherein said identification symbol is also written to the

memory (Shnelvar: see for example, Column 5 Line 35 – 60 & Figure 3 Element

60).

As per claim 6, 44 and 54, Shnelvar teaches the claimed invention as

described above (see claim 3, 40 and 42 respectively). Shnelvar further teaches

the memory is incorporated within a memory device (Shnelvar: see for example,

Column 5 Line 35 – 60 & Figure 3 Element 60).

As per claim 7, Shnelvar teaches the claimed invention as described above

(see claim 3). Shnelvar further teaches the memory is a dedicated area of tape

set aside for this purpose (Shnelvar: see for example, Column 5 Line 35 – 60 &

Figure 3 Element 60).

As per claim 8, 45 and 55, Shnelvar teaches the claimed invention as

described above (see claim 1, 44 and 54 respectively). Shnelvar further teaches

at least said data writing and code-with-data associating steps are repeated to

produce on the tape a number of data sets, each having a unique code associated with that particular data set (Shnelvar: see for example, Column 5 Line 35 – 60 & Figure 3 Element 60).

As per claim 9, Shnelvar teaches the claimed invention as described above (see claim 8). Shnelvar further teaches each access to the tape is treated as a new data set (Shnelvar: see for example, Column 5 Line 35 – 60 & Figure 3 Element 60).

As per claim 10 and 34, Shnelvar teaches the claimed invention as described above (see claim 4 and 32 respectively). Shnelvar further teaches the identification symbol is the number corresponding to the position of a particular code entry within a sequence of such code entries (Shnelvar: see for example, Figure 3 Element 60).

As per claim 12, 46 and 56, Shnelvar teaches the claimed invention as described above (see claim 8, 45 and 55 respectively). Shnelvar further teaches at least the codes created during writing of the data sets to the tape are written as entries to a table in the memory, in which each entry is identified by its position within the table (Shnelvar: see for example, Figure 3 Element 60).

As per claim 14, 48 and 58, Shnelvar teaches the claimed invention as described above (see claim 1, 39 and 41 respectively). Shnelvar further teaches said code is a checksum or a CRC (cyclic redundancy check) (Shnelvar: see for example, Column 5 Line 35 – 60).

As per claim 15, 49 and 59, Shnelvar teaches the claimed invention as described above (see claim 6, 44 and 42 respectively). Shnelvar further teaches the memory device is a cartridge memory (Shnelvar: see for example, Column 5 Line 35 – 60).

As per claim 16, 50 and 60, Shnelvar teaches the claimed invention as described above (see claim 4, 43 and 53 respectively). Shnelvar further teaches said identification symbol is numeric (Shnelvar: see for example, Column 5 Line 35 – 60).

As per claim 17, 51 and 61, Shnelvar teaches the claimed invention as described above (see claim 16, 50 and 60 respectively). Shnelvar further teaches said identification symbol is an integer (Shnelvar: see for example, Figure 3 Element 60).

As per claim 18, Shnelvar teaches the claimed invention as described above (see claim 8). Shnelvar further teaches each time a data set is written to the tape and a corresponding associated code is written to the memory, the next

code representative of the next data set is entered as the next entry to the memory

(Shnelvar: see for example, Column 5 Line 35 – 60 & Figure 3 Element 60: see

the same rationale as address above).

As per claim 19, 52 and 62, Shnelvar teaches the claimed invention as

described above (see claim 8, 44 and 54 respectively).  Shnelvar further teaches

there is included the step of keeping count of the total number of codes written to

the memory (Shnelvar: see for example, Column 5 Line 35 – 60 & Figure 8).

As per claim 20, Shnelvar teaches the claimed invention as described

above (see claim 19).  Shnelvar further teaches checking whether or not a

predetermined number of entries has been exceeded, and if it has, reporting the

tape as read only (Shnelvar: see for example, Column 5 Line 35 – 60 & Figure 8).

As per claim 22, Shnelvar teaches the claimed invention as described

above (see claim 1).  Shnelvar further teaches comparing the associated code

with information held on a secure database, and confirming the tape and/or the

data contained thereon as valid only if the code and its association with a

particular data set agree with the information held on the secure database

(Shnelvar: see for example, Column 5 Line 35 – 60 & Figure 3).

As per claim 23 and 36, Shnelvar teaches the claimed invention as

described above (see claim 22 and 31 respectively ). Shnelvar further teaches

said information held on the secure database includes a secure copy of the code

(Shnelvar: see for example, Column 5 Line 35 – 60 & Figure 3).

As per claim 25, 26 and 38, Shnelvar teaches the claimed invention as

described above (see claim 22, 11 and 1 respectively). Shnelvar further teaches

the comparing and/or confirming steps are carried out by a controlling software

application (Shnelvar: see for example, Column 5 Line 35 – 60 & Figure 3).

As per claim 27 and 28, Shnelvar teaches the claimed invention as

described above (see claim 22 and 11 respectively). Shnelvar further teaches the

comparing and/or confirming steps are carried out by means of an external reader

which is able to access and/or display information recorded in the memory

(Shnelvar: see for example, Column 5 Line 35 – 60 & Figure 1 Element 20 ⇔ 26).

As per claim 37, Shnelvar teaches the claimed invention as described

above (see claim 1). Shnelvar further teaches the or each code creating step is

carried out by apparatus used to write to and/or read from the tape (Shnelvar: see

for example, Column 5 Line 35 – 60 and Figure 3).

## Claim R jections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.      Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Shnelvar (Patent Number: US 6374266 B1), hereinafter referred to as Shnelvar.


As per claim 21, Shnelvar teaches the claimed invention as described

above (see claim 20). Shnelvar does not disclose expressly predetermined

number of entries is 16.

However, it would have been obvious to a person of ordinary skill in the art

at the time the invention was made to modify Shnelvar to accommodate

predetermined number of entries is 16 because Shnelvar teaches using a table to

store the code (Shnelvar: see for example, Figure 3 Element 60).


7.      Claims 11 and 34 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Shnelvar (Patent Number: US 6374266 B1), hereinafter

referred to as Shnelvar, in view of Johnston (Patent Number: 5287478),

hereinafter referred to as Johnston.

As per claim 11, Shnelvar teaches the claimed invention as described above (see claim 1). Shnelvar does not disclose expressly reading back a data set from the tape and creating a further code representative of the content of the data set read back from the tape, comparing the two codes and confirming the data set as valid only if the two codes agree.

Johnston teaches reading back a data set from the tape and creating a further code representative of the content of the data set read back from the tape, comparing the two codes and confirming the data set as valid only if the two codes agree (Johnston: see for example, Column 20 Line 23 – 34).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Johnston within the system of Shnelvar because Johnston teaches providing a complete digital data storage (such as magnetic tape) system for utilization with a host unit that can offer required performance and sufficiently reliable feature (Johnston: see for example, Column 3 Line 25 – 31).

As per claim 34, Shnelvar as modified teaches the claimed invention as described above (see claim 32). Shnelvar as modified further teaches the code is stored by being written as an entry to a memory device (Shnelvar: see for example, Column 5 Line 35 – 60 and Figure 3 Element 60

8.      Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Johnston (Patent Number: 5287478), hereinafter referred to as Johnston, in view

of Shnelvar (Patent Number: US 6374266 B1), hereinafter referred to as Shnelvar.


        As per claim 35, Johnston teaches the claimed invention as described

above (see claim 33).  Johnston does not disclose expressly the code is stored by

being written as an entry to a memory device.

        Shnelvar teaches the code is stored by being written as an entry to a

memory device (Shnelvar: see for example, Column 5 Line 35 – 60 and Figure 3

Element 60).

        It would have been obvious to a person of ordinary skill in the art at the time

the invention was made to combine the teaching of Shnelvar within the system of

Johnston because Shnelvar teaches providing a method to resolve the capacity

limitation problem of the backup storage when storing the system's program and

data files (Shnelvar: see for example, Column 1 Line 30 – 39).


9.      Claims 13, 47 and 57 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Shnelvar (Patent Number: US 6374266 B1), hereinafter

referred to as Shnelvar, in view of Gold (Patent Number: US 6701450 B1),

hereinafter referred to as Gold.

As per claim 13, 47 and 57, Shnelvar teaches the claimed invention as described above (see claim 1, 39 and 41). Shnelvar does not disclose expressly said code is a signature.

Gold teaches said code is a signature (Gold: see for example, Column 20 Line 24 – 31).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Gold within the system of Shnelvar because Gold teaches providing a more convenient data backup and recovery solution in data processing systems (Gold: see for example, Column 3 Line 20 – 21 and Column 1 Line 5 – 8).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Longbit Chai whose telephone number is 571-272-3788. The examiner can normally be reached on Monday-Friday 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Longbit Chai
Examiner
Art Unit 2131

LBC

EMMANUEL L. MOISE
PRIMARY EXAMINER